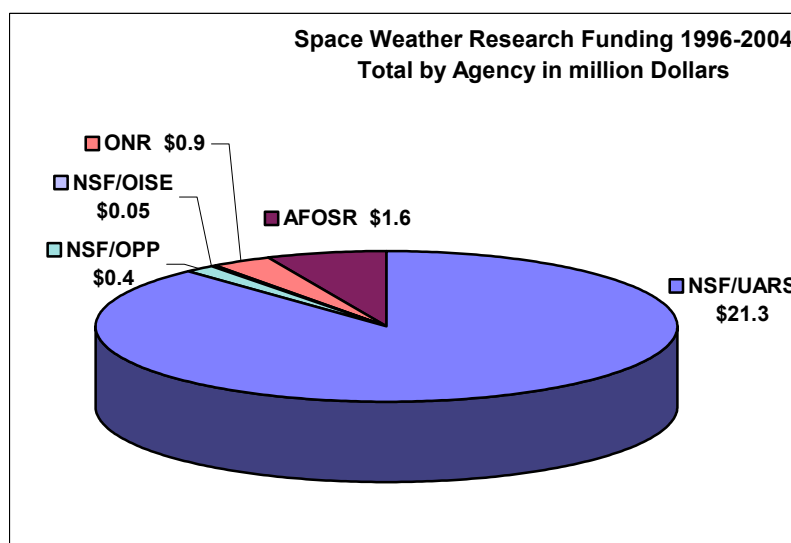


## Research in Support of the National Space Weather Program 1996-2004: Funding Report

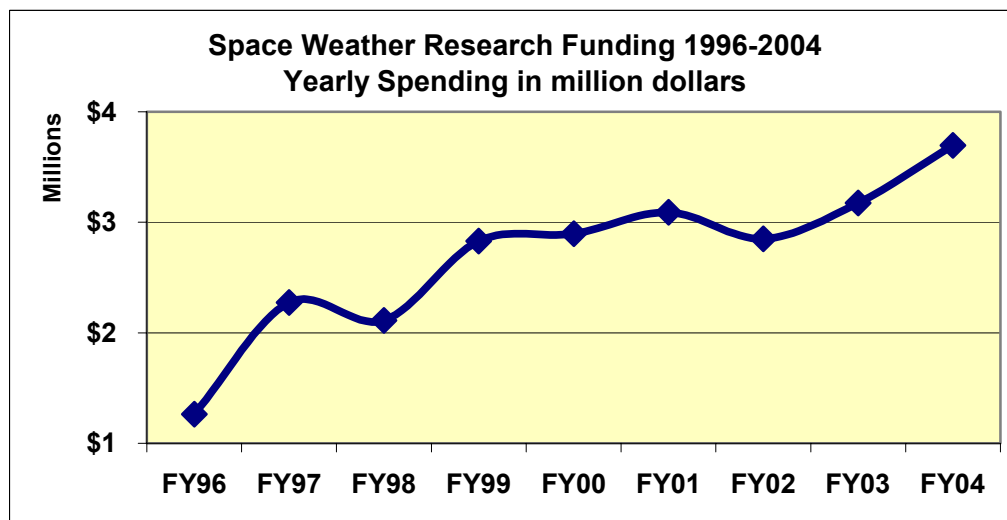
*Prepared by Therese Moretto Jorgensen, National Science Foundation, March 2005*

The National Science Foundation (NSF) and the Department of Defence (DOD) jointly sponsor grants for basic research in support of the United States National Space Weather Program. Within the DOD, the Air Force Office of Scientific Research (AFOSR) and Office of Naval Research (ONR) contribute to the research program. NSF funding is provided mainly by the Upper Atmospheric Research Section (UARS) in the Division of Atmospheric Sciences with minor contributions also from the Office of Polar Programs (OPP) and the Office of International Science and Engineering (OISE).

During the period 1996-2004, space weather awards for the total of \$24,188,000 have been granted through the NSF. The chart on the left shows the individual contributions to this total from participating DOD and NSF offices.

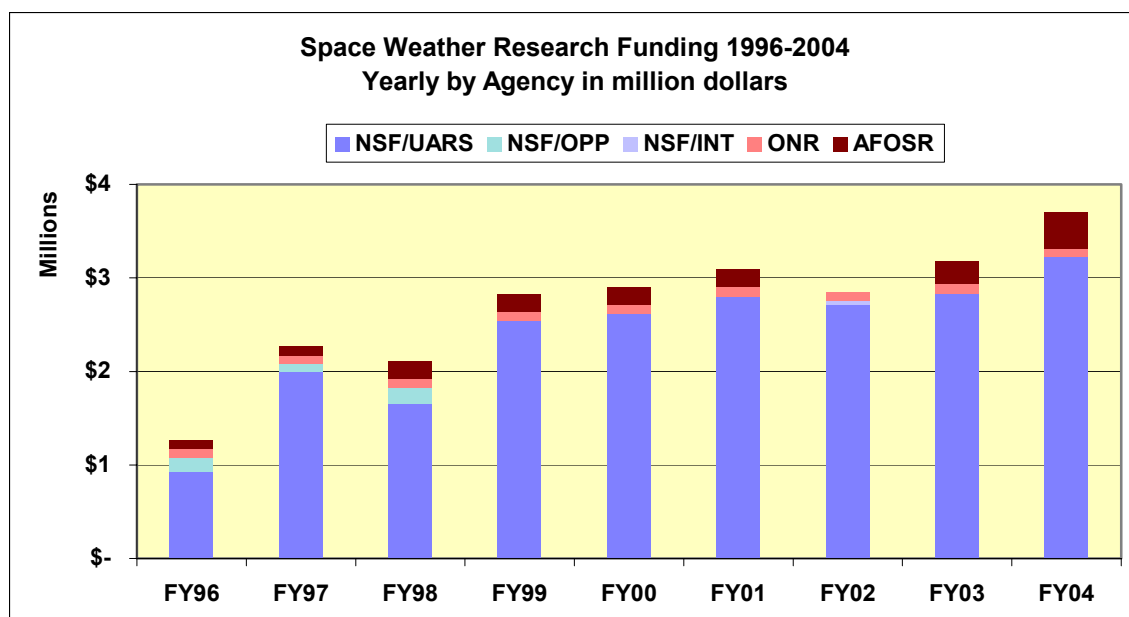


The following chart displays the funding level for each year during 1996-2004. After a brief start-up period, the program has been funded at a fairly steady level of approximately 3 million dollars per year.

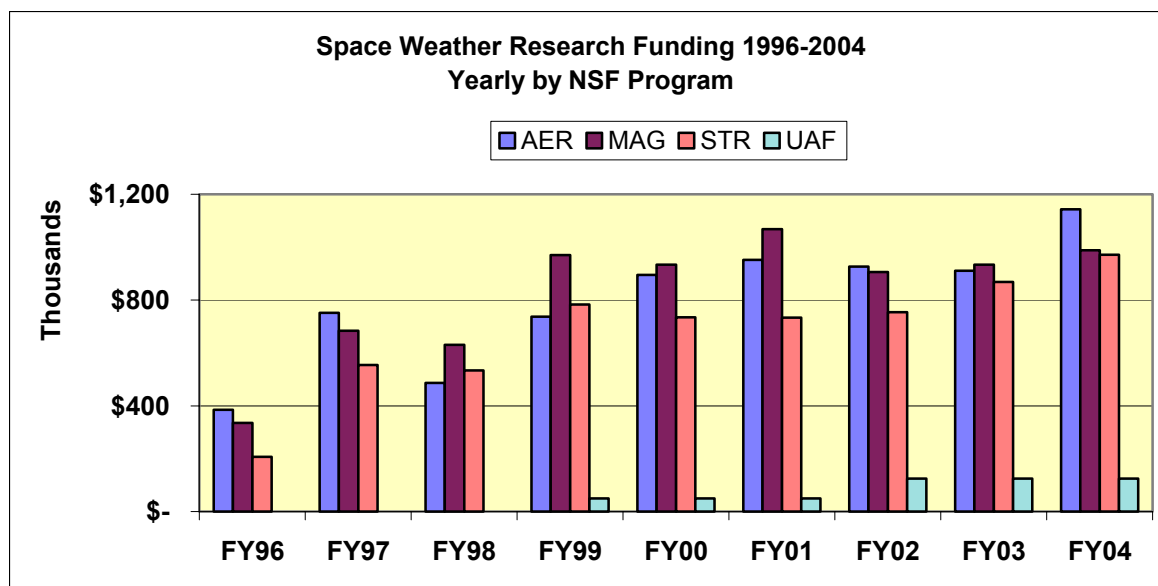


## Research in Support of the National Space Weather Program 1996-2004: Funding Report

The chart below again displays the yearly funding of the program, but includes details of the contributions from the participating NSF and DOD offices. It illustrates the continual commitment from the three main contributors, NSF/UARS, AFOSR, and ONR.



The Space Weather research program at NSF/UARS is a joint venture between the three research programs, Aeronomy (AER), Magnetospheric Physics (MAG), and Solar Terrestrial Research (STR), respectively. They have contributed roughly equally to the funding of the space weather research program. The total NSF/UARS contribution of 21.3 million dollars during 1996-2004 includes 7.2 million dollars from AER, 7.4 million dollars from MAG, and 6.1 million dollars from STR. The remaining small contribution of 0.5 million dollars was provided by the Upper Atmosphere Facilities (UAF) program. The chart below shows the yearly contributions from each of the NSF/UARS programs.

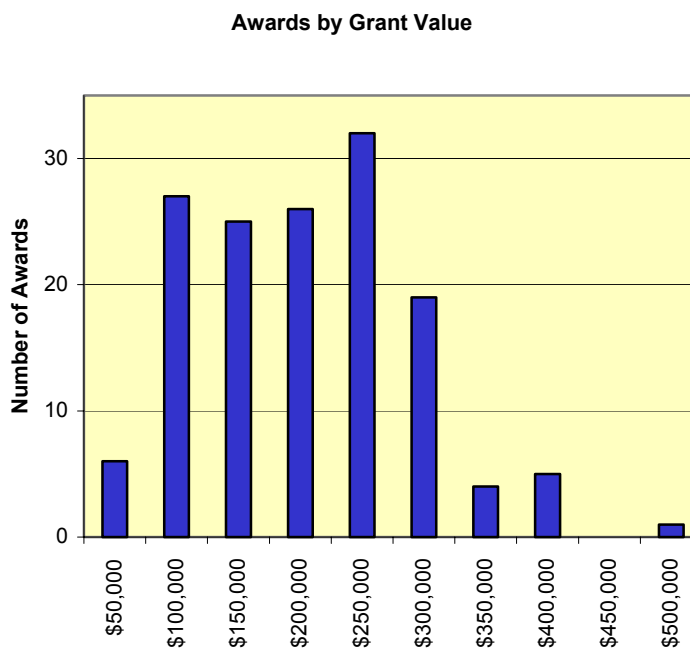


## Space Weather Research Awards

During 1996-2004, 145 awards were made for basic research projects in support of the National Space Weather Program. The awards total \$26,742,674, of which \$2,554,674 is for payment of continuing grants through FY05-FY08.

The minimum single grant awarded was for \$18,047 and the maximum was for \$483,571. The average value for awards was \$184,432. The chart on the right shows the distribution of awards by value (divided into \$50,000 bins).

The program has involved a large fraction of the space science research community and awards have been very broadly distributed as witnessed by the following statistics. The 145 awards were granted to 119 individual Principal Investigators (PI) at 52 institutions. Only 16 PIs received more than one award (5 of them received 3 separate awards). The average amount awarded to a PI under this program was \$224,728 with a minimum of \$18,047 and a maximum of \$997,800



The awards were distributed on 52 institutions resulting in an average funding level of \$504,579 per institution with a minimum of \$18,047, and maximum of \$2,403,116. Three institutions received awards totaling more than \$2 million: John Hopkins University, Applied Physics Laboratory (JHU/APL) \$2,403,116; University of California, Los Angeles (UCLA) \$2,238,432; University of Colorado, Boulder \$2,031,583. Another 4 institutions received awards totaling more than \$1 million: University of Michigan \$1,406,908; Massachusetts Institute of Technology (MIT) \$1,382,292; SRI International \$1,326,800; National Center for Atmospheric Research (NCAR) \$1,264,750. The chart below shows the full distribution of space weather research funding by institution. For each institution, the varying colors and patterns represent the funding for individual PIs at that institution.

### Space Weather Awards 1996-2004 by Institution

